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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,521	06/09/2000	Arturo A. Rodriguez	A-5704	1994

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SCIENTIFIC-ATLANTA, INC.
INTELLECTUAL PROPERTY DEPARTMENT
5030 SUGARLOAF PARKWAY
LAWRENCEVILLE, GA 30044

EXAMINER

SRIVASTAVA, VIVEK

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 02/26/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/590,521

Applicant(s)

RODRIGUEZ ET AL.

Examiner

Vivek Srivastava

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 9-13, 15, 27-29 and 42-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 9-13, 15, 27-29 and 42-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☒ Interview Summary (PTO-413) Paper No(s). 14
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 4, 5, 27, 44, and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (6,401,243) in view of Candelore (6,057,872).

Considering claim 27, Suzuki discloses a fiber optic system for delivering user requested digital programming meeting the claimed "digital broadband delivery system" (see col 6 lines 1-15) wherein a information transmission control means (col 13 lines 37-40) allocates bandwidth to at least two different content delivery modes, a A-class demand mode, a B-class demand mode and a C-class demand mode (see col 13 lines 24-33, col 15 lines 1-7) which apply to a plurality of downstream channels (col 13 lines 24-33). Further, Suzuki discloses a user demand request, wherein the demand request specifies the date and time that the subscriber wishes to reserve the program in the future (col 15 lines 1-5, col 14 lines 54-64) note; although the date is not specifically disclosed by Suzuki, requesting a C-class demand for programming is delivered in the future, i.e. one day (see col 15 lines 1-7) thus the date of delivery must inherently be included in the request to differentiate a same day delivery from a one-day delivery. Suzuki also discloses a plurality of preferences which identify the program requested (col 14 lines 54-59) and a fee the subscriber is willing to pay for the type of demand

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request for reserving a channel (col 13 lines 24-34, col 16 lines 1-7), note; if the subscriber requests an A-demand, the subscriber is willing to pay a higher price for programming, if the subscriber requests a B-demand or C-demand, the subscriber is willing to pay less for programming.

Suzuki fails to disclose the claimed wherein the at least two different content delivery modes include a pay-per-view mode. Candelore teaches a system which offers PPV with with NVOD or VOD and teaches that PPV is more profitable for the service providers (col 1 lines 58 – col 2 lines 22). It would have been obvious providing PPV to a subscriber in addition to NVOD and/or VOD would have provided a subscriber with a greater number of viewing options and would have been more profitable to the service providers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include PPV as one of the delivery modes to provide a user with a greater number of viewing options while increasing profits for the service providers.

Considering claim 4, see claim 27.

Considering claim 5, Suzuki discloses a reservation request for reserving a channel in a VOD system wherein the reservation request includes time information relating to the urgency of the requested transmission and the desired transmission format (see col 14 lines 54-64). The 'time information' and 'transmission format' meet the claimed "at least two assigned priorities" limitation.

Regarding claim 44, Suzuki fails to disclose the claimed wherein the at least two different content delivery modes include a pay-per-view mode. Candelore teaches a system which offers PPV with with NVOD or VOD and teaches that PPV is more profitable for the service providers (col 1 lines 58 – col 2 lines 22). It would have been obvious providing PPV to a subscriber in addition to NVOD and/or VOD would have

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provided a subscriber with a greater number of viewing options and would have been more profitable to the service providers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include PPV as one of the delivery modes to provide a user with a greater number of viewing options while increasing profits for the service providers.

Regarding claim 46, see claim 27.

Regarding claim 47, see claim 27.

Considering claim 48, Suzuki further discloses a user sending a demand or subscriber reservation request preferences including the format and level of random access for the which is based on the type of request (see col 18 lines 23-30 and col 11 lines 50-65) wherein the level of random access "low" or "high" is based on the type of request. Note: level of random access meets the claimed "receiving a subscriber request that identifies a desired level of random access functionality". Suzuki also discloses a user can specify a "copy permission request" which also meets the broadly claimed "identifying a desired level of random access functionality".

1. Claims 2, 3 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view Candelore as applied to claims 27 and 46 above, and further in view of Brown (5,771,435, previously cited).

Regarding claim 2, Suzuki discloses a plurality of VOD modes including an A-demand mode, B-demand mode and a C-demand mode but fails to disclose at least two content delivery modes selected from the group consisting of pay-per-view, VOD and N-VOD..

Brown teaches by providing two content delivery modes including VOD and N-VOD network resources can be conserved when constraints on the system are caused

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by too many VOD requests (col 7 lines 12-21). It would have been obvious modifying the combination of Suzuki and Candelore to further include two content delivery modes including VOD and N-VOD would conserve network resources when an excessive amount of requests for VOD transmission are received. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Candelore based on the teachings of Brown to include a VOD delivery mode and a N-VOD delivery mode to conserve network resources.

Regarding claim 3, Suzuki discloses a plurality of VOD modes including an A-demand mode, B-demand mode and C-demand mode but fails to disclose wherein at least one content delivery mode comprises a video content delivery mode wherein at least three instances of a same video content are transmitted at time-spaced intervals of varying length.

Brown teaches by providing a VOD delivery mode and a N-VOD delivery mode which provide time shifted versions of the same video, network resources can be conserved when constraints on the system are caused by too many VOD requests (col 7 lines 12-21). It would have been obvious providing a VOD delivery mode and a N-VOD delivery mode with at least three instances of the same video content transmitted at time-spaced intervals of varying length would conserve network resources when an excessive amount of requests for VOD transmission are received. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki in view of Brown to include a VOD delivery mode and a N-VOD delivery mode with at least three instances of the same video content transmitted at time-spaced intervals of varying length to conserve network resources.

Regarding claim 49, see claim 42.

2. Claims 9, 13 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Brown (5,771,435, previously cited).

Regarding claim 9, Suzuki discloses a plurality of VOD modes including an A-demand mode, B-demand mode and a C-demand mode but fails to disclose at least two content delivery modes selected from the group consisting of pay-per-view, VOD and N-VOD..

Brown teaches by providing two content delivery modes including VOD and N-VOD network resources can be conserved when constraints on the system are caused by too many VOD requests (col 7 lines 12-21). It would have been obvious modifying Suzuki to further include two content delivery modes including VOD and N-VOD would conserve network resources when an excessive amount of request for VOD transmission are received. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki based on the teachings of Brown to include a VOD delivery mode and a N-VOD delivery mode to conserve network resources.

Regarding claim 13, Suzuki discloses a plurality of VOD modes including an A-demand mode, B-demand mode and C-demand mode but fails to disclose wherein at least one content delivery mode comprises a video content delivery mode wherein at least three instances of a same video content are transmitted at time-spaced intervals of varying length.

Brown teaches by providing a VOD delivery mode and a N-VOD delivery mode which provide time shifted versions of the same video, network resources can be conserved when constraints on the system are caused by too many VOD requests (col 7 lines 12-21). It would have been obvious providing a VOD delivery mode and a N-VOD

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delivery mode with at least three instances of the same video content transmitted at time-spaced intervals of varying length would conserve network resources when an excessive amount of requests for VOD transmission are received. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki in view of Brown to include a VOD delivery mode and a N-VOD delivery mode with at least three instances of the same video content transmitted at time-spaced intervals of varying length to conserve network resources.

Regarding claim 45, see claim 9.

III. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Candelore, as applied to claim 27 above, and further in view of Haddad (5,835,843).

Regarding claim 6, Suzuki discloses allocating bandwidth at a request time by processing a plurality of demand requests from subscribers, i.e. A-demand, B-demand and C-demand, wherein the demand requests specify a time for delivery (col 15 lines 1-7, col 15 line 66 - col 16 line 8, col 16 lines 47 +). Since the requests are processed and the programming is delivered at the specified time by adjusting the bandwidth accordingly (col 13 lines 24-34, col 16 lines 34-67), a "statistical model to determine an adjusted bandwidth allocation schedule" must inherently be included in determining when to transmit the requested program based on the requested delivery time. Suzuki and Candelore fail to disclose wherein the statistical model assigns a weight to each of the allocation criteria, and wherein the assigned weight determines the priority given to each allocation criteria.

Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and

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schedules and delivers in successive weight order (col 18 lines 33-37). It would have been obvious including a statistical model to assign a weight and resulting priority in the combination of Suzuki and Candelore would have ensured each request would be processed and delivered in accordance with a delivery schedule ensuring the requested program is delivered at the user specified delivery time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Suzuki and Candelore to include a statistical model for assigning weight to each of the allocation criteria to ensure the requested program is delivered to the user at the user specified delivery time.

IV. Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Haddad (5,835,843).

Regarding claim 6, Suzuki discloses allocating bandwidth at a request time by processing a plurality of demand requests from subscribers, i.e. A-demand, B-demand and C-demand, wherein the demand requests specify a time for delivery (col 15 lines 1-7, col 15 line 66 - col 16 line 8, col 16 lines 47 +). Since the requests are processed and the programming is delivered at the specified time by adjusting the bandwidth accordingly (col 13 lines 24-34, col 16 lines 34-67), a "statistical model to determine an adjusted bandwidth allocation schedule" must inherently be included in determining when to transmit the requested program based on the requested delivery time. Suzuki fails to disclose wherein the statistical model assigns a weight to each of the allocation criteria, and wherein the assigned weight determines the priority given to each allocation criteria.

Haddad teaches a video distribution center for distributing requested video to viewers (Abstract) wherein a order processing computer weighs each request and

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schedules and delivers in successive weight order (col 18 lines 33-37). It would have been obvious including a statistical model to assign a weight and resulting priority in Suzuki would have ensured each request would be processed and delivered in accordance with a delivery schedule ensuring the requested program is delivered at the user specified delivery time. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include a statistical model for assigning weight to each of the allocation criteria to ensure the requested program is delivered to the user at the user specified delivery time.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 10, 11, 15, 28, 29, 42 and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (6,401,243).

Regarding claim 28, recites " a bandwidth allocation manager determines a bandwidth allocation schedule in the digital broadband delivery system based at least partially on the a subscriber reservation request". Regarding Suzuki discloses transmitting requested information according to a demand request specifying the time of delivery (col 16 lines 24-33, col 14 lines 55-64, Abstract). In order to provide

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programming according to a time specified by a user, the server in Suzuki must inherently include a bandwidth allocation manager which determines a bandwidth allocation schedule based at least partially on the subscriber demand request. Suzuki further discloses a user sending a demand or subscriber reservation request preferences including the format and level of random access for the which is based on the type of request (see col 18 lines 23-30 and col 11 lines 50-65) wherein the level of random access "low" or "high" is based on the type of request. Note: level of random access meets the claimed "subscriber preferences identifying a desired level of random access functionality". Suzuki also discloses a user can specify "a copy permission request" which also meets the broadly claimed "identifying a desired level of random access functionality. Further, claim 28 recites "a network allocation manager allocates bandwidth according to the bandwidth allocation schedule determined by the bandwidth allocation manager". As discussed above, Suzuki discloses scheduling programming for delivery according to user specified time. Suzuki further discloses allocating demand channels, A-demand, B-demand and C-demand according to a user specified time (col 16 lines 24-33, col 14 lines 55-64) and providing the allocated channels according to a schedule as discussed above, thus Suzuki discloses the claimed limitation.

Considering claim 10, Suzuki discloses a user specified demand request wherein the demand request specifies the date and time that the subscriber wishes to reserve the program in the future (col 15 lines 1-5, col 14 lines 54-64) note; although the date is not specifically disclosed by Suzuki, requesting a C-class demand for programming is delivered in the future, i.e. one day (see col 15 lines 1-7) thus the date of delivery must inherently be included in the request to differentiate a same day delivery from a one-day future delivery.

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Considering claim 11, Suzuki discloses a reservation request for reserving a channel in a VOD system wherein the reservation request includes time information relating to the urgency of the requested transmission and the desired transmission format (see col 14 lines 54-64). The 'time information' and 'transmission format' meet the claimed "at least two assigned priorities" limitation.

Considering claim 15, Suzuki discloses a receiver (inherently comprising a tuner) which receives channel allocation information from the transmission planning means and processes the information into a format suitable for presentation to the subscriber (col 21 lines 35-49).

Regarding claim 29, claim 29 recites the same limitations recited in claims 27 and 28 above, with the further limitation of a interface unit and tuner. Suzuki discloses a user interface (col 15 lines 19-21) and discloses a subscriber terminal (see fig 10) with a demand transmission means 11 which transmits the subscriber criteria to the CATV headend for allocating channels (bandwidth) according the user requested demand (col 15 lines 1-7, col 16 lines 47-67) and thus discloses the claimed "tuner".

Considering claim 42, Suzuki further discloses a user sending a demand or subscriber reservation request preferences including the format and level of random access for the which is based on the type of request (see col 18 lines 23-30 and col 11 lines 50-65) wherein the level of random access "low" or "high" is based on the type of request. Note: level of random access meets the claimed "receiving a subscriber request that identifies a desired level of random access functionality". Suzuki further discloses a information transmission control means which allocates bandwidth to at least two different content delivery modes, a A-class demand mode, a B-class demand mode and a C-class demand mode (see col 13 lines 24-33, col 15 lines 1-7) which apply to a plurality of downstream channels (col 13 lines 24-33). Further, Suzuki allocating

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channels based on the reservation request, the reservation request including the mode, format and level of random access functionality (col 18 lines 23-30, col 14 lines 45-65, col 11 lines 50-60, col 22 lines 10-16). Suzuki also discloses a user can specify a “copy permission request” which could also meet the broadly claimed “identifying a desired level of random access functionality”.

Considering claim 43, Suzuki discloses a user specified demand request wherein the demand request specifies the date and time that the subscriber wishes to reserve the program in the future (col 15 lines 1-5, col 14 lines 54-64) note; although the date is not specifically disclosed by Suzuki, requesting a C-class demand for programming is delivered in the future, i.e. one day (see col 15 lines 1-7) thus the date of delivery must inherently be included in the request to differentiate a same day delivery from a one-day delivery. Suzuki also discloses a plurality of preferences which identify the program requested (col 14 lines 54-59) and a fee the subscriber is willing to pay for the type of demand request for reserving a channel (col 13 lines 24-34, col 16 lines 1-7), note; if the subscriber requests an A-demand, the subscriber is willing to pay a higher price for programming, if the subscriber requests a B-demand or C-demand, the subscriber is willing to pay less for programming.

Response To Arguments

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Applicant argues that neither Suzuki nor the other references cited in the Office action disclose, teach or suggest "wherein the at least two different content delivery modes include a pay-per-view mode."

The Examiner agrees. However, it would have been obvious to modify Suzuki to include the claimed limitation as described above.

Applicant argues that neither Suzuki nor the other references cited in the Office Action disclose, teach or suggest "wherein the subscriber reservation request comprises a plurality of subscriber preferences identifying a desired level of random access functionality.

The Examiner respectfully disagrees. Suzuki does indeed disclose the claimed limitation as described above. As a result, the Applicant's arguments are not persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

V. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arias et al (6,118,976) - Asymmetric data communications system

Ganek et al (5,682,597) - Hybrid VOD and NVOD system

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's


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supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS

2/21/03



VIVEK SRIVASTAVA
PATENT EXAMINER